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REMARKS

Status of the Application

Claims 2, 4-12, 14-17, and 19-22 are pending in the case (except as shown below – and the exception does not result in any substantive variation of the claim set as pending when the Office Action was issued, as also shown below). The pending claims stand rejected under 35 U.S.C. § 112. The pending claims are also provisionally rejected under the doctrine of nonstatutory double patenting.

Amendments to the Specification

The first paragraph of the specification is being amended to correct and update related application data. The specification is also being amended where indicated to correct instances of obvious typographical error or faulty grammar. The “and” inserted in line 2 of the paragraph bridging pages 7 and 8 is consistent with the wording of original claim 3 (“ . . . nanoparticles selected from inorganic nanoparticles, organic nanoparticles and mixtures thereof.”) This was an inadvertent omission rendering the sentence obviously ungrammatical.

Amendments to the Claims

Claims 2, 4-5, 11, 14-15 and 20-22 are being amended. Claim 19 has been canceled and new claim 23 has been added. The Applicant’s Amendment of September 2005 canceled claims 1 and 3 and imported their limitations into claim 2. Claim 2 has been further amended to place the elements of the nanoparticle set in proper Markush-type language. Claims 11 and 20 have been similarly amended with the same intention. Support for all three is found in the paragraph bridging pages 7 and 8 of the application, as currently amended, and original claim 3. The amendment to claim 4 is minor, and is intended to make that claim consistent with the other dependent claims (comma following the number of the claim from which it depends). Claims 4, 5, 14, 15, 21 and 22 have been amended to place the wording in proper Markush-type form. Claim 19 is being canceled and replaced by new claim 23 so that the dependent claim will not be out of proper sequence with the independent claim from which it depends. Applicant has also changed “or” to “and” in the last line to provide appropriate Markush-type terminology.

Claim Rejections - 35 U.S.C. §112, Second Paragraph

The pending claims are rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as his invention. Applicants submit that the claim amendments presented above overcome these rejections, for the reasons set forth in the following remarks.

The Examiner has pointed out that the intended meaning of “mixtures” as applied to the nanoparticles requires clarification. Applicants respectfully submit that the foregoing amendments in light of the remarks presented herein overcome these rejections.

As noted above, original claim 3 and the intended wording of the second line of the last partial paragraph on page 7 indicate that the generic Markush group consists of inorganic

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nanoparticles, organic nanoparticles, and mixtures thereof. Claims 4, 14, and 21 define inorganic nanoparticles as certain species and mixtures thereof. Claims 5, 15, and 22 define organic nanoparticles as certain species and mixtures thereof. By operation of logic, then, the nanoparticles can comprise the following species:

- (a) inorganic nanoparticle;
 - (b) a mixture of inorganic nanoparticles;
 - (c) organic nanoparticle;
 - (d) a mixture of organic nanoparticles;
 - (e) an inorganic nanoparticle and an organic nanoparticle;
 - (f) more than one inorganic nanoparticles and an organic nanoparticle;
 - (g) an inorganic nanoparticle and more than one organic nanoparticles; and
 - (h) more than one inorganic nanoparticles and more than one organic nanoparticles;
- where "more than one" is intended to be synonymous with "mixture" as that term is used in the dependent claims.

Applicants submit that this should now render all the claims clear and definite, and respectfully request that these rejections be removed.

Claim Rejections – Nonstatutory Double Patenting

There are three rejections based on the judicially created doctrine of obviousness type double patenting. All rejections are presumed to be provisional, since the references are co-pending applications, i.e., there are no issued or allowed claims. The references cited are U.S. Publication No. 2004/0124504 and U.S. Patent Application No. 10/804,503.

Applicant's counsel hereby represents that this application and the two references were and are commonly owned. The data substantiating this common ownership is set forth below.

Application No. 10/804,503 has Applicant Docket No. PE 0673 US CIP1. The assignment from Dr. Che-Hsiung Hsu to E.I. du Pont de Nemours and Company was recorded on 06/29/2004 at Reel/Frame 014793/0640. This application was published as 2004-0206942.

Publication No. 2004-0124504 is Application Serial No. 10/669,422 and has Applicant Docket No. PE 0673 US NA. The assignment from Dr. Che-Hsiung Hsu to E.I. du Pont de Nemours and Company was recorded on 02/18/2004 at Reel/Frame 014347/0836.

The assignment in the present case from Dr. Che-Hsiung Hsu to E.I. du Pont de Nemours and Company was recorded on 02/18/2004 at Reel/Frame 014347/0702.

Dr. Hsu was employed by E.I. du Pont de Nemours and Company at the time of the invention in each case and was under a duty to assign to the company.

Rejection Over Claims 1-26 of Publication No. 2004/0124504

The pending claims stand rejected under the judicially created (nonstatutory) doctrine of obviousness type double patenting ("ODP") over claims 1-26 of this publication. The Examiner has stated that though the pending claims and the cited claims of the reference are not identical, they are not patentably distinct. Applicant respectfully traverses this assertion. The present claims include a plurality of nanoparticles, but the present claims also call for

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mixtures of inorganic nanoparticles, mixtures of organic nanoparticles, and mixtures of both inorganic (including mixtures) and organic (including mixtures) nanoparticles. It is not an obvious variation of the reference to have included these varieties of mixtures in the present claims. The combinations have substantial breadth, as demonstrated on page 7, subparagraphs (a) – (h), *supra*. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

Rejection Over Application No. 10/804,503

The pending claims are rejected over claims 2-14, 16-25, 27-33, 35-41 and 43 of this co-pending application. The Examiner has stated that the present claims and the cited claims of the reference are not patentably distinct because both sets are drawn to an electrically conductive organic polymer and a plurality of nanoparticles. Applicant respectfully traverses this assertion. The subject matter of the claims in these co-pending applications is distinct, and are non-obvious variants of each other. In the '503 application, the electrically conductive organic polymer is a combination of two or more polyanilines, polythiophenes and polypyrroles. The electrically conductive polymer of the present claims is a polyaniline, a polythiophene or a poly(ethylenedioxythiophene), where the first and third of this group are paired with a particular counterion. In the '503 application, the Markush groups of both the inorganic nanoparticles and the organic nanoparticles differ from those of the present claims, and the nanoparticles include mixtures in the present claims, as discussed above. For these reasons, Applicant respectfully requests that this rejection be withdrawn.

Further Rejection Over Publication No. 2004/0124504

The Examiner has entered this ODP rejection on grounds as above with the additional statement that there was no apparent reason why Applicant could not have presented the claims under review during prosecution of the application which matured into a patent. This statement is respectfully traversed on the grounds that this publication is still a co-pending application and not an issued patent, nor has the application upon which that publication is based been allowed. Accordingly, Applicant respectfully asserts that this further rejection adds nothing substantive to the previous rejection, which has been addressed above.

Conclusion

Applicant respectfully submits that a complete and thorough response has been made in this paper to the Office Action of February 21, 2006.

A petition for extension of time of one month, with authorization for the Commissioner to charge the requisite fee to the Deposit Account of E.I. du Pont de Nemours and Company accompanies this paper.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the above referenced application is in condition for allowance, and a notice of allowance is earnestly solicited.

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Respectfully submitted,



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